(FILE 'HOME' ENTERED AT 22:37:59 ON 30 MAY 2002)

FILE 'REGISTRY' ENTERED AT 22:38:07 ON 30 MAY 2002

L1 1 S FLUNARIZINE HYDROCHLORIDE
L2 STRUCTURE UPLOADED
L3 68 S L2 SSS FUL

FILE 'CAPLUS' ENTERED AT 22:45:05 ON 30 MAY 2002

L4 179 S L3 AND CALCIUM CHANNEL BLOCKER
L5 2 S L4 AND SKIN

	ENTRY	SESSION
FULL ESTIMATED COST	7.48	51.06

FILE 'REGISTRY' ENTERED AT 22:09:00 ON 30 MAY 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

STRUCTURE FILE UPDATES: 29 MAY 2002 HIGHEST RN 423115-51-9
DICTIONARY FILE UPDATES: 29 MAY 2002 HIGHEST RN 423115-51-9

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> s flunarizine or l22
L23 2 FLUNARIZINE OR L22

=> s calcium
L24 70643 CALCIUM

=> s l23 and l24
L25 0 L23 AND L24

=> fil caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	8.38	59.44

FILE 'CAPLUS' ENTERED AT 22:09:46 ON 30 MAY 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 30 May 2002 VOL 136 ISS 22
FILE LAST UPDATED: 29 May 2002 (20020529/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

```
=> s flunarizine or l22
L26       1168 FLUNARIZINE OR L22

=> s calcium channel and l26
L27        372 CALCIUM CHANNEL AND L26

=> s (calcium channel blocker and l26 and skin
UNMATCHED LEFT PARENTHESIS '(CALCIUM'
The number of right parentheses in a query must be equal to the
number of left parentheses.

=> s (calcium channel blocker and l26 and skin)
L28          2 (CALCIUM CHANNEL BLOCKER AND L26 AND SKIN)
```

thesaurus (/RL field) in this file.

=> s flunarizine or l22
L26 1168 FLUNARIZINE OR L22

=> s calcium channel and l26
L27 372 CALCIUM CHANNEL AND L26

=> s (calcium channel blocker and l26 and skin
UNMATCHED LEFT PARENTHESIS '(CALCIUM'
The number of right parentheses in a query must be equal to the number of left parentheses.

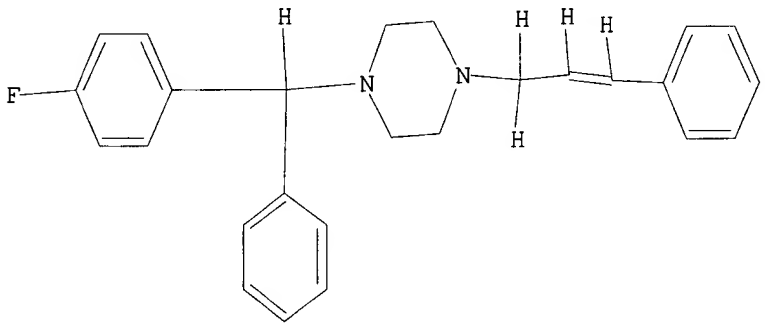
=> s (calcium channel blocker and l26 and skin)
L28 2 (CALCIUM CHANNEL BLOCKER AND L26 AND SKIN)

=> d 1-2 all

=>
Uploading 09981751.str

L2 STRUCTURE UPLOADED

=> d l2
L2 HAS NO ANSWERS
L2 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l2 sss ful
FULL SEARCH INITIATED 22:44:59
FULL SCREEN SEARCH COMPLETED - 202 TO ITERATE

100.0% PROCESSED 202 ITERATIONS 68 ANSWERS
SEARCH TIME: 00.00.01

L3 68 SEA SSS FUL L2

=> fil caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	156.83	157.04

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION

CA SUBSCRIBER PRICE -0.59 -0.59

FILE 'CAPLUS' ENTERED AT 22:45:05 ON 30 MAY 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 30 May 2002 VOL 136 ISS 22
FILE LAST UPDATED: 29 May 2002 (20020529/ED)

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```
=> s l3 and calcium channel blocker
L4          179 L3 AND CALCIUM CHANNEL BLOCKER

=> s l4 and skin
L5            2 L4 AND SKIN

=> d 1-2 all


     (FILE 'HOME' ENTERED AT 22:37:59 ON 30 MAY 2002)

     FILE 'REGISTRY' ENTERED AT 22:38:07 ON 30 MAY 2002
L1             1 S FLUNARIZINE HYDROCHLORIDE
L2               STRUCTURE UPLOADED
L3            68 S L2 SSS FUL

     FILE 'CAPLUS' ENTERED AT 22:45:05 ON 30 MAY 2002
L4           179 S L3 AND CALCIUM CHANNEL BLOCKER
L5             2 S L4 AND SKIN

=> log y
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                              22.19     179.23

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
                                                 ENTRY    SESSION
CA SUBSCRIBER PRICE                              -2.48      -3.07

STN INTERNATIONAL LOGOFF AT 22:46:40 ON 30 MAY 2002
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STRUCTURE FILE UPDATES: 29 MAY 2002 HIGHEST RN 423115-51-9
DICTIONARY FILE UPDATES: 29 MAY 2002 HIGHEST RN 423115-51-9

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> s flunarizine hydrochloride
L1 1 FLUNARIZINE HYDROCHLORIDE

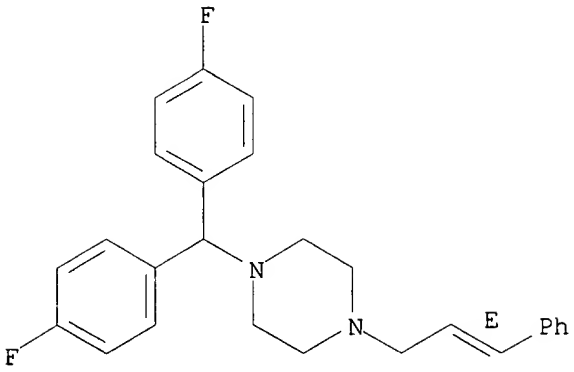
=> d all

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
RN 30484-77-6 REGISTRY
CN Piperazine, 1-[bis(4-fluorophenyl)methyl]-4-[(2E)-3-phenyl-2-propenyl]-, dihydrochloride (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Piperazine, 1-[bis(4-fluorophenyl)methyl]-4-(3-phenyl-2-propenyl)-, dihydrochloride, (E)-
CN Piperazine, 1-[bis(p-fluorophenyl)methyl]-4-cinnamyl-, dihydrochloride, (E)- (8CI)
OTHER NAMES:
CN Flunarizine dihydrochloride
CN **Flunarizine hydrochloride**
CN R 14950
FS STEREOSEARCH
MF C26 H26 F2 N2 . 2 Cl H
CI COM
LC STN Files: ANABSTR, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CAPLUS, CHEMCATS, CHEMLIST, CIN, CSCHEM, DRUGPAT, DRUGUPDATES, EMBASE, IPA, MRCK*, PHAR, RTECS*, TOXCENTER, USAN, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)
CRN (52468-60-7)

Ring System Data

Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
C6	C6	6	C6	46.150.18	3
C4N2	NC2NC2	6	C4N2	46.383.1	1

Double bond geometry as shown.



●2 HCl

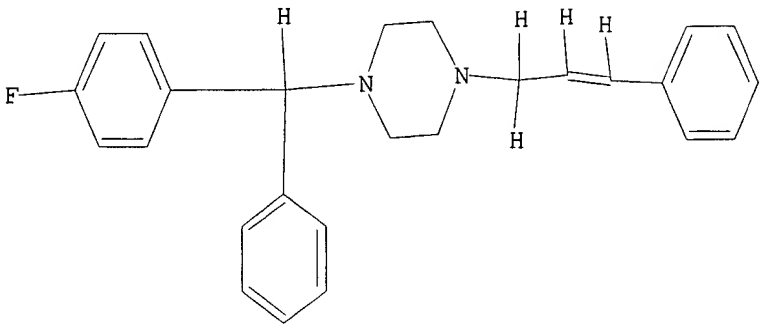
38 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
38 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1

Uploading 09981751.str

L2 STRUCTURE UPLOADED

=> d l2
L2 HAS NO ANSWERS
L2 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l2 sss ful
FULL SEARCH INITIATED 22:44:59
FULL SCREEN SEARCH COMPLETED - 202 TO ITERATE

100.0% PROCESSED 202 ITERATIONS 68 ANSWERS
SEARCH TIME: 00.00.01

L3 68 SEA SSS FUL L2

=> fil caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	156.83	157.04

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.59	-0.59

FILE 'CAPLUS' ENTERED AT 22:45:05 ON 30 MAY 2002

FILE COVERS 1907 - 30 May 2002 VOL 136 ISS 22
FILE LAST UPDATED: 29 May 2002 (20020529/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

```
=> s l3 and calcium channel blocker
L4          179 L3 AND CALCIUM CHANNEL BLOCKER

=> s l4 and skin
L5            2 L4 AND SKIN

=> d 1-2 all
```

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS
AN 1999:339238 CAPLUS
DN 131:139372
TI Effects of the **calcium channel blocker** flunarizine on spinal reflexes in cats
AU Genc, O.; Demir, S.; Tasci, N.; Kaptanoglu, B.; Marangoz, C.
CS Department of Physiology, Faculty of Medicine, Pamukkale University, Denizli, 20070, Turk.
SO Medical Science Research (1999), 27(4), 247-250
CODEN: MSCREJ; ISSN: 0269-8951
PB Lippincott Williams & Wilkins
DT Journal
LA English
CC 1-11 (Pharmacology)
Section cross-reference(s): 13
AB The effects of the **calcium channel blocker** flunarizine on spinal monosynaptic reflexes were investigated in spinal cats. Flunarizine was administered locally into the spinal cord (10, 50, 100 .mu.M) and i.p. (5, 10, 20 mg/kg). Adult cats (n = 10) weighing 1.5-3 kg were anesthetized with ketamine (50 mg/kg, i.m.), artificially ventilated and spinalized at the C1 level. A laminectomy was performed in the lumbosacral region. The ventral and dorsal roots of segment L5 were isolated and a pouch of **skin** formed at the site of the dissection to allow the exposed tissues to be covered with liq. paraffin. The temp. was kept at 38.5.degree.C with a heating pad. A polyethylene cannula was introduced into the left carotid artery to monitor blood pressure, which was kept above 100 mmHg. The dorsal root of segment L5 was placed on a silver-silver chloride wire electrode for stimulation through an isolation unit. The reflex potentials were recorded from the ipsilateral L5 ventral root, mounted on a silver-silver chloride wire electrode. The systemic (5, 10, 20 mg/kg) and local (50 and 100 .mu.M) dosages of flunarizine significantly decreased the amplitude of the reflex response ($P < 0.05$). Moreover, the latency of the monosynaptic reflexes increased after administration of the drug ($P < 0.05$). Voltage-dependent calcium channels in the spinal cord may play an important role in regulating the reflex response.
ST flunarizine calcium channel spinal reflex antiepileptic
IT Calcium channel
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(L-type; effects of **calcium channel blocker** flunarizine on spinal reflexes in cats)
IT Calcium channel
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(T-type; effects of **calcium channel blocker**

flunarizine on spinal reflexes in cats)
IT Ion channel blockers
(calcium; effects of **calcium channel blocker** flunarizine on spinal reflexes in cats)
IT Sodium channel
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(effects of **calcium channel blocker** flunarizine on spinal reflexes in cats)
IT Anticonvulsants
(effects of **calcium channel blocker** flunarizine on spinal reflexes in cats in relation to epilepsy)
IT Reflex
(spinal; effects of **calcium channel blocker** flunarizine on spinal reflexes in cats)
IT **52468-60-7**, Flunarizine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effects of **calcium channel blocker** flunarizine on spinal reflexes in cats)
RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Aicardi, G; Exp Brain Res 1990, V81, P288 CAPLUS
(2) Binnie, C; Ann NY Acad Sci 1988, V522, P710
(3) Carbone, E; J Physiol 1987, V386, P547 CAPLUS
(4) Carbone, E; J Physiol 1987, V386, P571 CAPLUS
(5) Carbone, E; Nature 1984, V310, P501 CAPLUS
(6) de Sarro, G; Br J Pharmac 1988, V93, P247 CAPLUS
(7) Ferlinz, J; Ann Intern Med 1986, V105, P714 MEDLINE
(8) Fujii, S; J Pharmacol Exp Ther 1997, V280(3), P1187
(9) Gan'Shina, T; Eksp Klin Farmakol 1996, V59(5), P12 CAPLUS
(10) Genc, O; First European Congress of Pharmacology Pharmacological Research Abst Book 1995, P226
(11) Gould, R; Mol Pharmacol 1984, V25, P235 CAPLUS
(12) Katz, A; Am J Cardiol 1985, V55, P2B CAPLUS
(13) Kawasaki, K; Jap J Pharmac 1978, V28, P165 CAPLUS
(14) Leysen, J; The Pharmacological Basis of Migraine Therapy 1984, P255 CAPLUS
(15) McLean, M; Pol J Pharmacol Pharm 1987, V39, P513 MEDLINE
(16) Mikkelsen, E; Ugeskr Laeger 1995, V157(26), P3750 MEDLINE
(17) Moraidis; Neurosci Lett 1991, V129, P51 CAPLUS
(18) Nagano, N; Gen Pharmac 1988, V19, P789 CAPLUS
(19) Nowycky, M; Nature 1985, V31, P339
(20) Popoli, P; Arch Int Pharmacodyn Ther 1988, V292, P58 CAPLUS
(21) Straub, H; Epilepsy and inhibition 1992, P255
(22) Straub, H; Pflugers Arch 1991, Suppl1, PR14
(23) Tytgat, J; Naunyn Schmiedebergs Arch Pharmacol 1988, V337, P690 CAPLUS
(24) Weiner, D; Med Clin N Am 1988, V72, P83 CAPLUS

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS
AN 1992:143854 CAPLUS
DN 116:143854
TI Treatment of cutaneous hypersensitivity with topical **calcium channel blockers**
IN Sharpe, Richard J.; Arndt, Kenneth A.; Galli, Stephen J.
PA Beth Israel Hospital Assoc., USA
SO S. African, 23 pp.
CODEN: SFXXAB
DT Patent
LA English
IC ICM A61K
ICS C07D
CC 1-7 (Pharmacology)

Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	ZA 9006583	A	19910925	ZA 1990-6583	19900720
PRAI	US 1989-396846		19890821		

AB Ca channel blockers are used topically for inhibition of cutaneous, ocular, or mucosal hypersensitivity reactions, inflammation, hyperproliferation, or scarring. Mice were sensitized to 3% oxazolone (I) by applying I to the abdomen and hind footpad. On the day of treatment, each side of both ears were challenged with I. Nifedipine (II) was applied to each side of a given ear 1 h after challenge. II reduced the I-induced inflammation significantly after 24 h as compared to control.

ST **calcium channel blocker skin** hypersensitivity; inflammation inhibitor **calcium channel blocker**; hyperproliferation inhibitor **calcium channel blocker**; scarring inhibitor **calcium channel blocker**; nifedipine inflammation inhibitor

IT Inflammation inhibitors
(**calcium channel blockers**)

IT Leukocyte
(cutaneous accumulation of, inhibition of, in **skin** hypersensitivity reactions)

IT Fungicides and Fungistats
Steroids, biological studies
RL: BIOL (Biological study)
(cutaneous hypersensitivity inhibition with topical **calcium channel blockers** and)

IT Lupus erythematosus
(cutaneous, treatment of, with topical **calcium channel blockers**)

IT Burn
Psoriasis
Skin, disease
(treatment of, with topical **calcium channel blockers**)

IT Dermatitis
(allergic, contact, treatment of, with topical **calcium channel blockers**)

IT Ulcer inhibitors
(aphthous, topical **calcium channel blockers**)

IT Ion channel blockers
(calcium, cutaneous hypersensitivity inhibition with topical)

IT Dermatitis
(contact, treatment of, with topical **calcium channel blockers**)

IT Mucous membrane
(disease, treatment of, with topical **calcium channel blockers**)

IT Connective tissue
(disease, scleroderma, treatment of, with topical **calcium channel blockers**)

IT Vagina
(disease, vaginitis, treatment of, with topical **calcium channel blockers**)

IT **Skin**, disease
(hyperproliferation, treatment of, with topical **calcium channel blockers**)

IT **Skin**, disease
(ichthyosis, treatment of, with topical **calcium channel blockers**)

IT Eye, disease

(inflammation, treatment of, with topical **calcium channel blockers**)
IT **Skin**, disease
(lichen planus, treatment of, with topical **calcium channel blockers**)
IT **Skin**, neoplasm
(mycosis fungoides, treatment of, with topical **calcium channel blockers**)
IT **Skin**, disease
(pyoderma gangrenosum, treatment of, with topical **calcium channel blockers**)
IT Intestine, disease
(rectum, inflammation, treatment of, with topical **calcium channel blockers**)
IT Neurotransmitter antagonists
(serotoninergic, cutaneous hypersensitivity inhibition with topical **calcium channel blockers** and)
IT Acne
(vulgaris, treatment of, with topical **calcium channel blockers**)
IT 52-53-9, Verapamil 298-57-7 6621-47-2, Perhexiline 21829-25-4, Nifedipine 22609-73-0, Niludipine 39562-70-4, Nitrendipine 42399-41-7 **52468-60-7**, Flunarizine 55985-32-5, Nicardipine 63675-72-9 64706-54-3, Bepridil 66085-59-4, Nimodipine 72509-76-3, Felodipine 75530-68-6, Nilvadipine 75695-93-1, Isradipine 119615-65-5, McN-6186
RL: BIOL (Biological study)
(cutaneous hypersensitivity inhibition with topical)
IT 50-55-5, Reserpine 129-03-3, Cyproheptadine 288-32-4D, Imidazole, derivs. 361-37-5 749-02-0, Spiperone 1166-34-3, Cinanserine 1400-61-9, Nystatin 1893-33-0, Pipamperone 19794-93-5, Trazodone 23593-75-1, Clotrimazole 24219-97-4, Mianserin 27220-47-9 41621-49-2, Ciclopirox olamine 60634-51-7, LY 53857 61318-90-9 64211-45-6, Oxiconazole 65277-42-1 65472-88-0, Naftifine 74050-98-9, Ketanserin 84625-61-6, Itraconazole 85273-96-7 87051-43-2, Ritanserin 106266-06-2, Risperidone 108674-87-9, LY 281067
RL: BIOL (Biological study)
(cutaneous hypersensitivity inhibition with topical **calcium channel blockers** and)

=> d 1-2 all, hitstr

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS
AN 1999:339238 CAPLUS
DN 131:139372
TI Effects of the **calcium channel blocker** flunarizine on spinal reflexes in cats
AU Genc, O.; Demir, S.; Tasci, N.; Kaptanoglu, B.; Marangoz, C.
CS Department of Physiology, Faculty of Medicine, Pamukkale University, Denizli, 20070, Turk.
SO Medical Science Research (1999), 27(4), 247-250
CODEN: MSCREJ; ISSN: 0269-8951
PB Lippincott Williams & Wilkins
DT Journal
LA English
CC 1-11 (Pharmacology)
Section cross-reference(s): 13
AB The effects of the **calcium channel blocker** flunarizine on spinal monosynaptic reflexes were investigated in spinal cats. Flunarizine was administered locally into the spinal cord (10, 50, 100 .mu.M) and i.p. (5, 10, 20 mg/kg). Adult cats (n = 10) weighing 1.5-3 kg were anesthetized with ketamine (50 mg/kg, i.m.), artificially

ventilated and spinalized at the C1 level. A laminectomy was performed in the lumbosacral region. The ventral and dorsal roots of segment L5 were isolated and a pouch of **skin** formed at the site of the dissection to allow the exposed tissues to be covered with liq. paraffin. The temp. was kept at 38.5.degree.C with a heating pad. A polyethylene cannula was introduced into the left carotid artery to monitor blood pressure, which was kept above 100 mmHg. The dorsal root of segment L5 was placed on a silver-silver chloride wire electrode for stimulation through an isolation unit. The reflex potentials were recorded from the ipsilateral L5 ventral root, mounted on a silver-silver chloride wire electrode. The systemic (5, 10, 20 mg/kg) and local (50 and 100 .mu.M) dosages of flunarizine significantly decreased the amplitude of the reflex response ($P < 0.05$). Moreover, the latency of the monosynaptic reflexes increased after administration of the drug ($P < 0.05$). Voltage-dependent calcium channels in the spinal cord may play an important role in regulating the reflex response.

ST flunarizine calcium channel spinal reflex antiepileptic

IT Calcium channel
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(L-type; effects of **calcium channel blocker** flunarizine on spinal reflexes in cats)

IT Calcium channel
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(T-type; effects of **calcium channel blocker** flunarizine on spinal reflexes in cats)

IT Ion channel blockers
(calcium; effects of **calcium channel blocker** flunarizine on spinal reflexes in cats)

IT Sodium channel
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(effects of **calcium channel blocker** flunarizine on spinal reflexes in cats)

IT Anticonvulsants
(effects of **calcium channel blocker** flunarizine on spinal reflexes in cats in relation to epilepsy)

IT Reflex
(spinal; effects of **calcium channel blocker** flunarizine on spinal reflexes in cats)

IT **52468-60-7**, Flunarizine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effects of **calcium channel blocker** flunarizine on spinal reflexes in cats)

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Aicardi, G; Exp Brain Res 1990, V81, P288 CAPLUS
(2) Binnie, C; Ann NY Acad Sci 1988, V522, P710
(3) Carbone, E; J Physiol 1987, V386, P547 CAPLUS
(4) Carbone, E; J Physiol 1987, V386, P571 CAPLUS
(5) Carbone, E; Nature 1984, V310, P501 CAPLUS
(6) de Sarro, G; Br J Pharmac 1988, V93, P247 CAPLUS
(7) Ferlinz, J; Ann Intern Med 1986, V105, P714 MEDLINE
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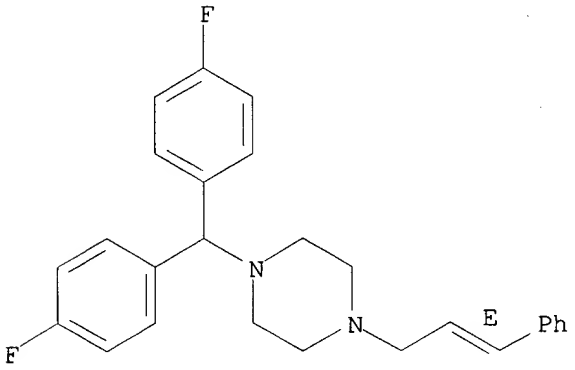
(12) Katz, A; Am J Cardiol 1985, V55, P2B CAPLUS
(13) Kawasaki, K; Jap J Pharmac 1978, V28, P165 CAPLUS

(14) Leysen, J; The Pharmacological Basis of Migraine Therapy 1984, P255 CAPLUS
(15) McLean, M; Pol J Pharmacol Pharm 1987, V39, P513 MEDLINE
(16) Mikkelsen, E; Ugeskr Laeger 1995, V157(26), P3750 MEDLINE
(17) Moraidis; Neurosci Lett 1991, V129, P51 CAPLUS
(18) Nagano, N; Gen Pharmac 1988, V19, P789 CAPLUS
(19) Nowycky, M; Nature 1985, V31, P339
(20) Popoli, P; Arch Int Pharmacodyn Ther 1988, V292, P58 CAPLUS
(21) Straub, H; Epilepsy and inhibition 1992, P255
(22) Straub, H; Pflugers Arch 1991, Suppl1, PR14
(23) Tytgat, J; Naunyn Schmiedebergs Arch Pharmacol 1988, V337, P690 CAPLUS
(24) Weiner, D; Med Clin N Am 1988, V72, P83 CAPLUS

IT **52468-60-7**, Flunarizine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effects of **calcium channel blocker** flunarizine on spinal reflexes in cats)

RN 52468-60-7 CAPLUS
CN Piperazine, 1-[bis(4-fluorophenyl)methyl]-4-[(2E)-3-phenyl-2-propenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS
AN 1992:143854 CAPLUS
DN 116:143854
TI Treatment of cutaneous hypersensitivity with topical **calcium channel blockers**
IN Sharpe, Richard J.; Arndt, Kenneth A.; Galli, Stephen J.
PA Beth Israel Hospital Assoc., USA
SO S. African, 23 pp.
CODEN: SFXXAB
DT Patent
LA English
IC ICM A61K
ICS C07D
CC 1-7 (Pharmacology)
Section cross-reference(s): 63

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI ZA 9006583	A	19910925	ZA 1990-6583	19900720
PRAI US 1989-396846		19890821		

AB Ca channel blockers are used topically for inhibition of cutaneous, ocular, or mucosal hypersensitivity reactions, inflammation, hyperproliferation, or scarring. Mice were sensitized to 3% oxazolone (I) by applying I to the abdomen and hind footpad. On the day of treatment,

each side of both ears were challenged with I. Nifedipine (II) was applied to each side of a given ear 1 h after challenge. II reduced the I-induced inflammation significantly after 24 h as compared to control.

ST **calcium channel blocker skin** hypersensitivity; inflammation inhibitor **calcium channel blocker**; hyperproliferation inhibitor **calcium channel blocker**; scarring inhibitor **calcium channel blocker**; nifedipine inflammation inhibitor

IT Inflammation inhibitors
(**calcium channel blockers**)

IT Leukocyte
(cutaneous accumulation of, inhibition of, in **skin** hypersensitivity reactions)

IT Fungicides and Fungistats
Steroids, biological studies
RL: BIOL (Biological study)
(cutaneous hypersensitivity inhibition with topical **calcium channel blockers** and)

IT Lupus erythematosus
(cutaneous, treatment of, with topical **calcium channel blockers**)

IT Burn
Psoriasis
Skin, disease
(treatment of, with topical **calcium channel blockers**)

IT Dermatitis
(allergic, contact, treatment of, with topical **calcium channel blockers**)

IT Ulcer inhibitors
(aphthous, topical **calcium channel blockers**)

IT Ion channel blockers
(calcium, cutaneous hypersensitivity inhibition with topical)

IT Dermatitis
(contact, treatment of, with topical **calcium channel blockers**)

IT Mucous membrane
(disease, treatment of, with topical **calcium channel blockers**)

IT Connective tissue
(disease, scleroderma, treatment of, with topical **calcium channel blockers**)

IT Vagina
(disease, vaginitis, treatment of, with topical **calcium channel blockers**)

IT **Skin**, disease
(hyperproliferation, treatment of, with topical **calcium channel blockers**)

IT **Skin**, disease
(ichthyosis, treatment of, with topical **calcium channel blockers**)

IT Eye, disease
(inflammation, treatment of, with topical **calcium channel blockers**)

IT **Skin**, disease
(lichen planus, treatment of, with topical **calcium channel blockers**)

IT **Skin**, neoplasm
(mycosis fungoides, treatment of, with topical **calcium channel blockers**)

IT **Skin**, disease
(pyoderma gangrenosum, treatment of, with topical **calcium**

channel blockers)

IT Intestine, disease
(rectum, inflammation, treatment of, with topical **calcium channel blockers**)

IT Neurotransmitter antagonists
(serotoninergic, cutaneous hypersensitivity inhibition with topical **calcium channel blockers** and)

IT Acne
(vulgaris, treatment of, with topical **calcium channel blockers**)

IT 52-53-9, Verapamil 298-57-7 6621-47-2, Perhexiline 21829-25-4, Nifedipine 22609-73-0, Niludipine 39562-70-4, Nitrendipine 42399-41-7 **52468-60-7**, Flunarizine 55985-32-5, Nicardipine 63675-72-9 64706-54-3, Bepridil 66085-59-4, Nimodipine 72509-76-3, Felodipine 75530-68-6, Nilvadipine 75695-93-1, Isradipine 119615-65-5, McN-6186
RL: BIOL (Biological study)
(cutaneous hypersensitivity inhibition with topical)

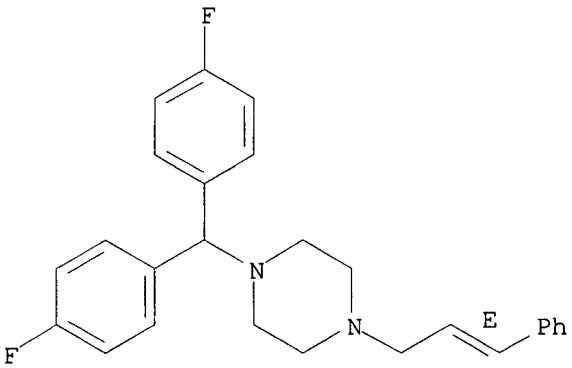
IT 50-55-5, Reserpine 129-03-3, Cyproheptadine 288-32-4D, Imidazole, derivs. 361-37-5 749-02-0, Spiperone 1166-34-3, Cinanserine 1400-61-9, Nystatin 1893-33-0, Pipamperone 19794-93-5, Trazodone 23593-75-1, Clotrimazole 24219-97-4, Mianserin 27220-47-9 41621-49-2, Ciclopirox olamine 60634-51-7, LY 53857 61318-90-9 64211-45-6, Oxiconazole 65277-42-1 65472-88-0, Naftifine 74050-98-9, Ketanserin 84625-61-6, Itraconazole 85273-96-7 87051-43-2, Ritanserin 106266-06-2, Risperidone 108674-87-9, LY 281067
RL: BIOL (Biological study)
(cutaneous hypersensitivity inhibition with topical **calcium channel blockers** and)

IT **52468-60-7**, Flunarizine
RL: BIOL (Biological study)
(cutaneous hypersensitivity inhibition with topical)

RN 52468-60-7 CAPLUS

CN Piperazine, 1-[bis(4-fluorophenyl)methyl]-4-[(2E)-3-phenyl-2-propenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



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L10 ANSWER 1 OF 3 USPATFULL
IN Breton, Lionel, Versailles, FRANCE
Nonotte, Isabelle, Paris, FRANCE
TI Treating skin wrinkles/fine lines with **calcium** channel **inhibitors**
PI US 2002058682 A1 20020516

L10 ANSWER 2 OF 3 USPATFULL
IN Nonotte, Isabelle, Paris, FRANCE
Breton, Lionel, Versailles, FRANCE
TI Manganese compositions for reducing/preventing skin wrinkles and fine lines
PI US 2002028254 A1 20020307

L10 ANSWER 3 OF 3 USPATFULL
IN Breton, Lionel, Versailles, FRANCE
Nonotte, Isabelle, Paris, FRANCE
TI Treating skin wrinkles/fine lines with **calcium** channel **inhibitors**
PI US 6344461 B1 20020205

=> d his

(FILE 'HOME' ENTERED AT 09:11:56 ON 31 MAY 2002)

FILE 'CAPLUS' ENTERED AT 09:12:06 ON 31 MAY 2002
L1 32 S VARIOUS CALCIUM CHANNEL
L2 35687 S CALCIUM (5A) (INHIBIT? OR BLOCK? OR ANTAGONI?)
L3 6422 S (SMOOTH? OR RELAX? OR LOOSEN? OR SLACKEN?) (10A) (SKIN OR TIS
L4 33 S L2 (2S) L3
L5 28 S L2 (1S) L3
L6 22 S L5/AB
L7 22 FOCUS L6 1-

FILE 'USPATFULL' ENTERED AT 10:08:31 ON 31 MAY 2002
L8 105 S L5
L9 32 S (SMOOTH? OR RELAX? OR LOOSEN? OR SLACKEN?) (10A) (SKIN TISSUE
L10 3 S L2 AND L9

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